Indiana Crop & Weather Report

INDIANA AGRICULTURAL STATISTICS
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CROP REPORT FOR WEEK ENDING JUNE 4

field activities was slowed again last week in some areas of the state because of scattered showers and wet field conditions, according to the Indiana Agricultural Statistics Service. Soybean planting is still more than 3 weeks ahead of the average. Nitrogen application and post herbicide applications were taking place. First cutting and baling of hay crops was in full swing around the state. Farmers are encouraged to monitor fields for insects.

CORN AND SOYBEANS

Virtually all of the intended **corn** acreage is planted. Corn condition is rated 82 percent good to excellent compared with 84 percent last year at this time. Ninety-eight percent of the corn crop has **emerged** compared with 97 percent last year. Ninety-four percent of the **soybean** acreage is planted compared with 95 percent last year and far ahead of the 65 percent for the 5-year average. Soybean condition improved and is rated 67 percent good to excellent compared with 80 percent last year. By area, soybean planting is 94 percent complete in the north, 95 percent complete in the central and 90 percent complete in the south.

WINTER WHEAT

Virtually all of the winter wheat acreage is **headed** compared with 99 percent last year and 85 percent for the 5-year average. Winter wheat **condition** is rated 80 percent good to excellent compared with 84 percent at this time a year ago.

OTHER CROPS

Pasture condition was rated 18 percent excellent, 56 percent good, 21 percent fair, 4 percent poor and 1 percent very poor. Transplanting of tobacco is 63 percent complete compared with 53 percent last year and 30 percent for the average. First cutting of alfalfa hay is 55 percent complete compared with 64 percent last year and 40 percent for the average.

DAYS SUITABLE and SOIL MOISTURE

For the week ending Friday, 3.7 days were rated **suitable for fieldwork**. **Topsoil moisture** was rated 1 very short, 9 percent short, 77 percent adequate and 13 percent surplus. **Subsoil moisture** was rated 7 percent very short, 32 percent short, 58 percent adequate and 3 percent surplus.

CROP PROGRESS

Crop	This Week	Last Week	Last Year	5-Year Avg
	Percent			
Corn Emerged	98	92	97	NA
Soybeans Planted	94	87	95	65
Soybeans Emerged	86	69	79	NA
Winter Wheat Headed	100	99	99	85
Alfalfa, First Cutting	55	30	64	40
Tobacco Plants Set	63	40	53	30

CROP CONDITION

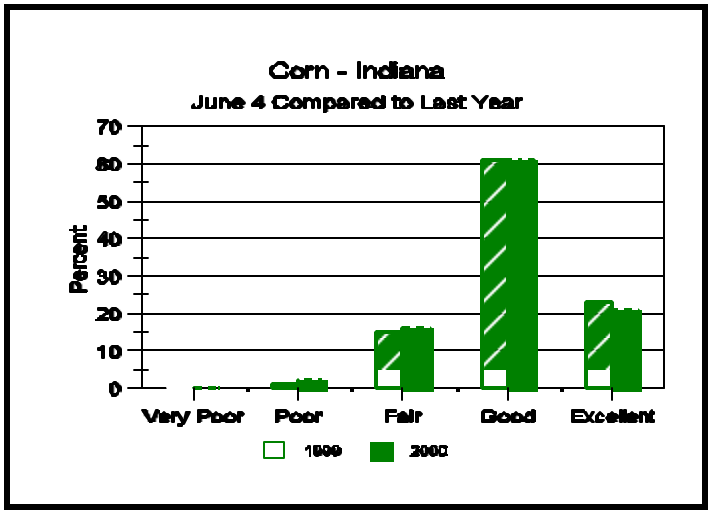
Crop	Very Poor	Poor	Fair	Good	Excel-lent
			Percent		
Corn	0	2	16	61	21
Soybeans	1	5	27	55	12
Winter Wheat 2000	0	4	16	55	25
Pasture	1	4	21	56	18

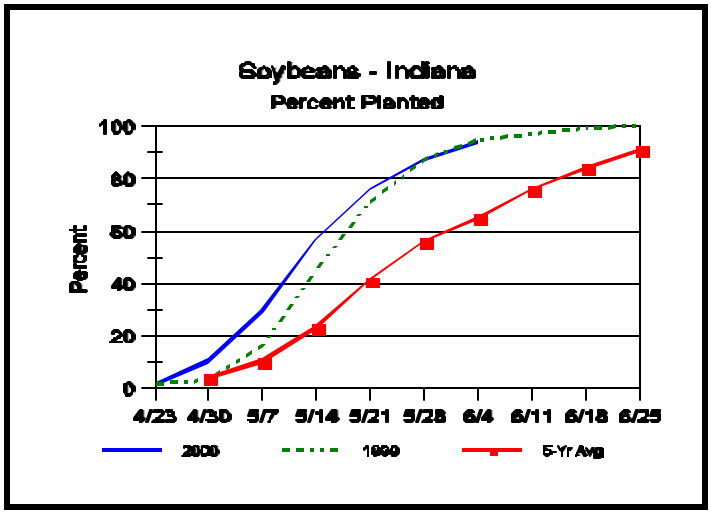
SOIL MOISTURE

	This Week	Last Week	Last Year
		Percent	
Topsoil			
Very Short	1	1	0
Short	9	8	4
Adequate	77	78	74
Surplus	13	13	22
Subsoil			
Very Short	7	9	1
Short	32	34	9
Adequate	58	52	77
Surplus	3	5	13

--Ralph W. Gann, State Statistician
--Bud Bever, Agricultural Statistician
E-Mail Address: nass-in@nass.usda.gov
http://info.aes.purdue.edu/agstat/nass.html

Crop Progress





Evaluating Thin Soybean Stands

- Slow emerging soybeans and thin stands
- Determining stand count in solid seeded soybeans
- Replant decisions

A number of individuals have expressed concerns regarding the slow emergence of soybeans planted in April. Soil temperatures were very cold during the entire month of April, only reaching 60 degrees on the last day of April. These cold soils resulted in very slow emergence with one of my plantings at the Diagnostic Training Center requiring three weeks to emerge. The health of the plants in those fields that I have examined appears to be good with little evidence of rotting of the germinating seed, however, I have also received some reports of root rot diseases thinning soybean stands. A number of the plants that I have examined appear to have had some difficulty emerging as is evidenced by enlarged hypocotyls. These enlarged hypocotyls may be the result of the extended time that the plants have been in the soil or in some cases are the result of deep planting, compaction, or soil crusting.

Where crusting, compaction, or deep planting has been a problem and stands are thin, an evaluation of the condition of the plants not yet emerged should be made as soon as possible. This can be accomplished by digging in the field to determine if a significant number of plants have been damaged trying to emerge. Broken hypocotyls will be the most common problem encountered. If it appears that the maximum number of plants have emerged that are going to emerge, then the plant population of the emerged stand needs to be determined. The best method to use with solid seeded or drilled soybeans is the hula-hoop method. This involves the use of a perfectly round circle made of wire or other material including a child's hula-hoop. Determine the fractional part of an acre within the circle by dividing the area of an acre (43,560 sq.ft.) by the radius of the circle (in inches) squared divided by 144. This example is for a circle or hula-hoop having a diameter of 36 inches: 43,560/(((18X18)X3.14)/144) or 6,165. You are now ready to make your stand count by tossing the hula-hoop and counting the number of plants within the hula-hoop. Now multiply number of plants counted within the circle by 6,165 to obtain the number of plants per acre. These counts should be made at several locations within the field to obtain an average for the field or to identify areas within the field that have a particularly poor stand.

Once the actual stand has been determined, you are then ready to decide if the field should be replanted. In addition to the actual stand, other factors need to be determined including

(Continued on Page 4.)

Weather Data

Week ending Sunday June 4, 2000

Station	Past Week Weather Summary Data							Accumulation				
								April 1, 2000 thru June 4, 2000				
	Air Temperature				Precip.		Avg 4 in Soil	Precipitation		GDD Base 50°F		
	Hi	Lo	Avg	DFN	Total	Days	Temp	Total	DFN	Days	Total	DFN
Northwest (1)												
Valparaiso_Ag	87	46	63	-3	0.76	5		8.70	+0.31	32	489	-5
Wanatah	87	44	63	-3	0.54	4	66	7.78	-0.15	28	483	+39
Wheatfield	88	46	64	-2	0.45	2		8.29	+0.54	25	528	+56
Winamac	88	47	65	-2	0.48	3	69	8.23	+0.47	22	533	+11
North Central (2)												
Logansport	88	49	65	-2	0.26	3		5.91	-1.81	28	545	+26
Plymouth	87	44	62	-5	0.35	3		8.25	+0.05	28	470	-78
South_Bend	86	43	63	-3	0.40	3		8.32	+0.77	31	503	+31
Young_America	88	48	66	-1	0.18	3		6.68	-1.04	23	620	+101
Northeast (3)												
Bluffton	87	48	65	-3	0.28	2	66	7.37	-0.50	24	563	+26
Fort_Wayne	87	46	64	-2	0.13	2		6.84	-0.46	24	544	+46
West Central (4)												
Crawfordsville	88	46	66	-3	0.05	1	68	6.40	-2.17	23	530	-77
Perrysville	89	49	67	-1	0.22	3	71	7.17	-1.32	23	598	+24
Terre_Haute_Ag	91	51	70	+3	0.03	1	70	8.13	-0.71	22	721	+85
W_Lafayette_6NW	90	48	64	-3	0.29	3	67	5.95	-2.14	24	600	+74
Central (5)												
Castleton	88	50	67	-2	0.13	2		9.48	+0.88	31	628	+25
Greenfield	87	50	67	-1	0.08	1		9.93	+1.18	29	642	+66
Greensburg	88	50	67	+0	0.21	2		9.95	+0.58	31	654	+72
Indianapolis_AP	86	51	68	-1	0.01	1		8.81	+0.65	26	689	+63
Indianapolis_SE	87	49	67	-2	0.04	1		8.15	-0.45	22	626	+23
Tipton_Ag	87	48	64	-2	0.04	1	66	6.92	-1.26	22	528	+42
East Central (6)												
Farmland	88	47	66	+1	0.50	2	63	10.23	+2.32	29	571	+102
New_Castle	84	47	64	-3	0.00	0		8.53	-0.51	26	465	-18
Southwest (7)												
Dubois_Ag	89	52	70	+2	0.33	2	76	7.24	-2.36	29	764	+101
Evansville	90	54	71	-1	0.04	2		4.98	-4.29	27	847	+47
Freelandville	89	54	70	+1	0.01	1		7.84	-1.62	21	727	+57
Shoals	88	51	69	+2	0.46	1		7.80	-2.14	28	684	+40
Vincennes_5NE	88	53	69	+0	0.14	2		7.00	-2.46	25	719	+49
South Central (8)												
Bloomington	89	47	68	-2	0.00	0		8.27	-0.90	23	662	+7
Tell_City	89	55	71	+2	0.63	2		7.85	-2.28	23	788	+44
Southeast (9)												
Scottsburg	90	51	69	+1	0.00	0		8.21	-0.93	21	747	+75

DFN = Departure From Normal (Using 1961-90 Normals Period).
GDD = Growing Degree Days.
Precipitation (rain or melted snow/ice) in inches.
Precipitation Days = Days with precipitation of 0.01 inch or more.
Air Temperatures in Degrees Fahrenheit.

the date of the replant, uniformity of the stand, and any weeds that might be present. A 50% solid stand or 80,000 plants per acre will result in a yield reduction of a full season variety of approximately 4-5%, while a total replant on May 30 will result in a 6% yield reduction assuming that a perfect stand is obtained. In addition to the yield penalties related to reduced stands and delayed planting, the additional costs associated with a replant need to be included. In most years a solid seeded stand of 60,000 plants per acre will give a yield equal to that of a perfect stand replanted on June 10. Both the 60,000 plants from a mid May planting and the June 10 replant will result in a yield reduction of approximately 10 percent. Therefore, in most cases reduced stands of mid May planted soybeans will give an equal or higher yield than a replant and will provide a higher return since the costs of the replant have been avoided. By the time you read this newsletter, the bottom line will be that a uniform stand of 80,000 plants per acre will give an equal to higher yield and a greater profit than a replant.

In some cases, areas within a field may be very thin (less than 60,000 plants per acre) and should be replanted. In these areas, I would suggest that a variety one-half of a maturity group earlier than the one originally planted be used so that these areas and the balance of the field mature at about the same time.

--Ellsworth P. Christmas, Purdue University

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